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## Publications

### Books

1. Janusz Brzdek, Dorian Popa, Ioan Raşa, Bing Xu, *Ulam Stability of Operators, Mathematical Analysis and its Applications*, Series Editor Themistocles M. Rassias, Academic Press, 2018, ISBN: 978-0-12-809829-5, 225 pp.
2. F. Altomare, M. Cappelletti Montano, V. Leonessa, and I. Raşa, *Markov Operators, Positive Semigroups and Approximation Processes*, De Gruyter Studies in Mathematics, Vol. 61, 2014, ISBN: 978-3-11-037274-8.
3. N. Breaz, L. Cabulea, A. Pitea, G. Zbaganu, R. Tudorache, I. Raşa, *Probabilităţi şi Statistică*, Ed. StudIS, 2013, 304p. ISBN 978-606-624-309-4. (in Romanian)
4. D. Cimpean, D. Inoan, I. Raşa, *An invitation to Linear Algebra and Analytic Geometry*, Ed. Mediamira, 2009, 101p., ISBN 978-973-713-255-0.
5. I. Raşa, *Lectures on Probability Theory and Stochastic Processes*, Ed. U.T.Pres, 2006, 123p, ISBN (10) 973-662-250-9; (13) 978-973-662-250-2.
6. V. Pop, I. Raşa, *Linear Algebra with applications to Markov Chains*, Ed. Mediamira, 2005, 211p., ISBN 973-713-059-6.
7. C. Jalobeanu, I. Raşa, *Incertitudine şi decizie. Statistică şi probabilităţi aplicate în management*, Editura U.T.Pres, Cluj-Napoca, 2001, 303p., ISBN 973-9471-70-6. (in Romanian)
8. I. Raşa, T. Vladislav, *Inegalităţi şi aplicaţii*, Editura Tehnică, Bucureşti, 2000, 128p., ISBN 973-31-1497-9. (in Romanian)
9. T. Vladislav, I. Raşa, *Analiză Numerică. Aproximare, problema lui Cauchy abstractă, proiectori Altomare*, Editura Tehnică, Bucureşti, 1999, 173p, ISBN 973-31-1336-0. (in Romanian)
10. I. Raşa, T. Vladislav, *Analiză Numerică. Curbe spline, operatori Bernstein, algoritmul lui Casteljaou*, Editura Tehnică, Bucureşti, 1998, 176p, ISBN 973-31-1247-7. (in Romanian)

11. T. Vladislav, I. Raşa, *Analiză Numerică. Elemente introductive*, Editura Tehnică, Bucureşti, 1997, 199p, ISBN 973-31-1054-X. (in Romanian)

## Chapters in books

1. Altomare, F., Cappelletti Montano, M., Leonessa, V., Raşa, I., *Differential operators and approximation processes generated by Markov operators, Integral Methods in Science and Engineering*, Volume 1, Theoretical Techniques, Springer International Publishing AG 2017, ISBN 978-3-319-59383-8, DOI 10.1007/978-3-319-59384-5, Chapter 2, pp.9-18.
2. Heilmann, M., Raşa, I., *A Nice Representation for a Link Between Bernstein-Durrmeyer and Kantorovich Operators*, Chapter 26, Springer Nature Singapore Pte Ltd. 2017, D. Giri et al. (Eds.): ICMC 2017, CCIS 655, 2017, DOI: 10.1007/978-981-10-4642-1 Chapter 26, 978-981-10-4641-4, 448609\_1\_En
3. D. Popa, G. Pugna, I. Raşa, *On the best Hyers-Ulam stability constants for some equations and operators*, Chapter 25 in Contributions in Mathematics and Engineering, Springer International Publishing Switzerland 2016, P.M. Pardalos, T.M. Rassias (eds.), Contributions in Mathematics and Engineering, DOI 10.1007/978-3-319-31317-7\_25, pp. 517-528, ISBN: 978-3-319-31315-3 (Print) 978-3-319-31317-7 (Online)
4. M. Heilmann, I. Raşa, *k-th Order Kantorovich Modification of Linking Baskakov-Type Operators*, Chapter 18 in International Conference on Recent Trends in Mathematical Analysis and Its Applications 2014, in P. N. Agrawal et al: Mathematical Analysis and its Applications, pp.229-242, Springer Proceedings in Mathematics and Statistics 2015, ISBN 978-81-322-2484-6, 334852\_1\_En.
5. D. Popa, I. Raşa, I., *Hyers-Ulam Stability of Some Differential Equations and Differential Operators*, Chapter 14 in T. M. Rassias (ed.), Handbook of Functional Equations, Springer Optimization and Its Applications 96, 2014, pp. 301-322. DOI 10.1007/978-1-4939-1286-5\_14, Springer Science+Business Media, LLC 2014 1. ISBN 978-1-4939-1285-8

## Scientific papers

### ISI/Clarivate/Thomson Reuters

1. A. Aral, D. Inoan, I. Raşa, Approximation properties of Szász–Mirakyan operators preserving exponential functions. Positivity 23, 233–246 (2019). <https://doi.org/10.1007/s11117-018-0604-3>
2. A. Aral, D. Otrocol, I. Raşa, On approximation by some Bernstein–Kantorovich exponential-type polynomials. Period Math Hung 79, 236–254 (2019)

3. A.M. Acu, I. Raşa, Estimates for the differences of positive linear operators and their derivatives. *Numer Algor* (2019).  
<https://doi.org/10.1007/s11075-019-00809-4>
4. M. Campiti, I. Raşa, Extrapolation Properties of Multivariate Bernstein Polynomials. *Mediterr. J. Math.* 16, 109 (2019).  
<https://doi.org/10.1007/s00009-019-1392-0>
5. A. Aral, D. Inoan, I. Raşa, On differences of linear positive operators. *Anal.Math.Phys.* 9, 1227–1239 (2019). <https://doi.org/10.1007/s13324-018-0227-7>
6. A. Bărar, G. Mocanu, I. Raşa, Heun functions related to entropies. *RACSAM* 113, 819–830 (2019). <https://doi.org/10.1007/s13398-018-0516-x>
7. M. Heilmann, I. Raşa, A Nice Representation for a Link Between Baskakov- and Szász–Mirakjan–Durrmeyer Operators and Their Kantorovich Variants. *Results Math* 74, 9 (2019).  
<https://doi.org/10.1007/s00025-018-0932-4>
8. D. Popa, I. Raşa, A. Viorel, *Approximate solutions of the logistic equation and Ulam stability*, *Appl. Math. Lett.* Volume 85, November 2018, Pages 64-69 <https://doi.org/10.1016/j.aml.2018.05.018>
9. S. Hodis, L. Mesáros, I. Raşa, *Smoothness and shape preserving properties of Bernstein semigroup*, *Mediterr. J. Math.* (2018) 15:96  
<https://doi.org/10.1007/s00009-018-1146-4>
10. Ioan Raşa, *Convexity properties of some entropies*, *Results Math.* (2018) 73:105 DOI: 10.1007/s00025-018-0868-8
11. Altomare, F., Cappelletti-Montano, M., Leonessa, V., Raşa, I., *Elliptic differential operators and positive semigroups associated with generalized Kantorovich operators*, *J. Math. Anal. Appl.* Volume 458, Issue 1, 1 February 2018, Pages 153-173.
12. Nasaireh, F., Raşa, I., *Another look at Voronovskaja type formulas*, *J. Math. Inequalities* Volume 12, Number 1 (2018), 95-105.
13. Barar, A., Mocanu, G., Raşa, I., *Bounds for some entropies and special functions*, *Carpathian J. Math.* 34 (2018), No. 1, 9-15.
14. Heilmann, M., Raşa, I.,  *$C_0$ -Semigroups associated with uniquely ergodic Kantorovich modifications of operators*, *Positivity* (2018) 22:829-835  
<https://doi.org/10.1007/s11117-017-0547-0> <https://doi.org/10.1007/s11117-017-0547-0>
15. Abel, U., Raşa, I., *A sharpening of a problem on Bernstein polynomials and convex functions*, *Math. Inequal. Appl.* Volume 21, Number 3 (2018), 773-777 doi:10.7153/mia-2018-21-55
16. Ciurte, A., Nedevschi, S., Raşa, I., *Systems of nonlinear algebraic equations with positive solutions*, *J. Inequal. Appl.* (2017) 2017:178 DOI 10.1186/s13660-017-1454-4
17. Brzdek, J., Popa, D., Raşa, I., *Hyers-Ulam stability with respect to gauges*, *J. Math. Anal. Appl.* 453 (2017) 620-628

18. Mocanu, G., Raşa, I. *Approximation of  $C_0$ -semigroups generated by differential operators on the unit interval*, Numer. Funct. Anal. Optimiz. Volume 38, 2017 - Issue 5, 674-682.  
<http://dx.doi.org/10.1080/01630563.2017.1292283>
19. Nasaireh, F., Popa, D., Raşa, I. *Convergence properties of nets of operators*, Ann. Funct. Anal. Volume 9, Number 1, (2018), 1-7; doi:10.1215/20088752-2017-0018. <https://projecteuclid.org/euclid.afa/1498723218>
20. Raşa, I., *Complete monotonicity of some entropies*, Periodica Math. Hungar. December 2017, Volume 75, Issue 2, pp 159-166 DOI: 10.1007/s10998-016-0177-5
21. Mocanu, G., Raşa, I., *Hormander representations and Hill trajectories for certain partial differential operators*, Mediterr. J. Math. 14, No.1, Article 32, February 2017, DOI 10.1007/s00009-016-0839-9.
22. Gonska, H., Raşa, I., *On the composition and decomposition of positive linear operators (V)*, Results Math. 72 (2017), 1033-104. DOI 10.1007/s00025-016-0618-8
23. Heilmann, M., Raşa, I., *Eigenstructure and Iterates for Uniquely Ergodic Kantorovich Modifications of Operators*, Positivity (2017) 21:897-910 DOI 10.1007/s11117-016-0441-1
24. Popa, D., Raşa, I., *Hyers-Ulam stability of the Laplace operator*, Fixed Point Theory, 19(2018), No. 1, 379-382 DOI 10.24193/fpt-ro.2018.1.29
25. Altomare, F., Cappelletti-Montano, M., Leonessa, V., Raşa, I., *A generalization of Kantorovich operators for convex compact subsets*, Banach J. Math. Anal. 11 (2017), no. 3, 591-614 doi: 10.1215/17358787-2017-0008. <http://projecteuclid.org/euclid.bjma/1494036023>
26. K. Baumann, M. Heilmann, I. Raşa, *Further results for  $k$ th order Kantorovich modification of linking Baskakov type operators*. Results Math. 69 (2016), no. 3-4, 297–315. MR3499563
27. Acar, Tuncer; Aral, Ali; Raşa, Ioan, *The new forms of Voronovskaya's theorem in weighted spaces*. Positivity 20 (2016), no. 1, 25–40. MR3462037
28. Acu, Ana Maria; Raşa, Ioan, *New estimates for the differences of positive linear operators*. Numer. Algorithms 73 (2016), no. 3, 775–789. MR3564869
29. Erençin, A., Raşa, I., *Voronovskaya type theorems in weighted spaces*, Numerical Functional Analysis and Optimization 37(2016) No.12, 1517-1528, DOI: 10.1080/01630563.2016.1219743
30. Popa, D., Raşa, I., *Best constant in stability of some positive linear operators*, Aequat. Math. 90(2016), 719–726. DOI: 10.1007/s00010-016-0405-3
31. Acar, T., Aral., Raşa, I., *Approximation by  $k$ -th order modifications of Szász-Mirakyan operators*, Studia Scientiarum Mathematicarum Hungarica 53(3)(2016), 379–398 DOI: 10.1556/012.2016.1339
32. Popa, D., Raşa, I., *Steklov Averages as Positive Linear Operators*, Filomat 01/2016; 30(5):1195-1201. DOI:10.2298/FIL1605195P

33. G. Mocanu, I. Raşa,  *$C_0$ -semigroups associated with Markov operators*. *Mediterr. J. Math.* 13(2016), no. 1, 353–363.
34. I. Raşa, *Entropies and Heun functions associated with positive linear operators*. *Appl. Math. Comput.* 268 (2015), 422–431.
35. H. Gonska, I. Raşa, E. D. Stănilă, *Power series of the operators* *U<sub>q</sub>*. *Positivity* 19 (2015), no. 2, 237–249.
36. A. Ciurte, S. Nedevschi, I. Raşa, *Systems of nonlinear algebraic equations with unique solution*. *Numer. Algorithms* 68 (2015), no. 2, 367–376.
37. M. Heilmann, I. Raşa, *On the decomposition of Bernstein operators*. *Numer. Funct. Anal. Optim.* 36 (2015), no. 1, 72–85.
38. I. Raşa, *Approximation processes and asymptotic relations*. *Carpathian J. Math.* 30 (2014), no. 3, 395–400.
39. D. Popa, I. Raşa, *Best constant in Hyers-Ulam stability of some functional equations*. *Carpathian J. Math.* 30 (2014), no. 3, 383–386.
40. H. Gonska, I. Raşa, E. D. Stănilă, *Lagrange-type operators associated with U<sub>q</sub>*. *Publ. Inst. Math. (Beograd) (N.S.)* 96(110) (2014), 159–168.
41. Acar, Tuncer, A. Aral, I. Raşa, *Power series of Beta operators*. *Appl. Math. Comput.* 247 (2014), 815–823.
42. D. Popa, I. Raşa, *Complete monotonicity and limit of a generalized Euler sequence*. *Ramanujan J.* 34 (2014), no. 2, 177–186.
43. A. Aral, D. Inoan, I. Raşa, *On the generalized Szász-Mirakyan operators*. *Results Math.* 65 (2014), no. 3-4, 441–452.
44. H. Gonska, I. Raşa, E. D. Stănilă, *The eigenstructure of operators linking the Bernstein and the genuine Bernstein-Durrmeyer operators*. *Mediterr. J. Math.* 11 (2014), no. 2, 561–576.
45. D. Cárdenas-Morales, P. Garrancho, I. Raşa, *Approximation properties of Bernstein-Durrmeyer type operators*. *Appl. Math. Comput.* 232 (2014), 1–8.
46. F. Altomare, M. Cappelletti Montano, V. Leonessa, I. Raşa, *On differential operators associated with Markov operators*. *J. Funct. Anal.* 266 (2014), no. 6, 3612–3631.
47. F. Altomare, M. Cappelletti Montano, V. Leonessa, I. Raşa, *On Markov operators preserving polynomials*. *J. Math. Anal. Appl.* 415 (2014), no. 1, 477–495.
48. D. Popa, I. Raşa, *On the best constant in Hyers-Ulam stability of some positive linear operators*. *J. Math. Anal. Appl.* 412 (2014), no. 1, 103–108.
49. D. Inoan, I. Raşa, *A recursive algorithm for Bernstein operators of second kind*. *Numer. Algorithms* 64 (2013), no. 4, 699–706.
50. H. Gonska, I. Raşa, M. D. Rusu, *Čebyšev-Grüss-type inequalities revisited*. *Math. Slovaca* 63 (2013), no. 5, 1007–1024.
51. D. Popa, I. Raşa, *On the stability of some classical operators from approximation theory*. *Expo. Math.* 31 (2013), no. 3, 205–214.
52. I. Raşa, *Asymptotic relations for the Bernstein-Schnabl operators on the unit interval*. *Carpathian J. Math.* 29 (2013), no. 1, 85–89.

53. H. Gonska, I. Raşa, *On infinite products of positive linear operators reproducing linear functions*. Positivity 17 (2013), no. 1, 67–79.
54. D. Cárdenas-Morales, P. Garrancho, I. Raşa, *Optimality of piecewise  $\tau$ -linear interpolating operators*. Appl. Math. Comput. 219 (2013), no. 12, 6445–6448.
55. I. Raşa, *Power series of Bernstein operators and approximation of resolvents*. Mediterr. J. Math. 9 (2012), no. 4, 635–644.
56. H. Gonska, I. Raşa, M. D. Rusu, *Generalized Ostrowski-Griiss-type inequalities*. Results Math. 62 (2012), no. 3-4, 311–318.
57. H. Gonska, D. Kacsó, I. Raşa, *The genuine Bernstein-Durrmeyer operators revisited*. Results Math. 62 (2012), no. 3-4, 295–310.
58. D. Popa, I. Raşa, *Hyers-Ulam stability of the linear differential operator with nonconstant coefficients*. Appl. Math. Comput. 219 (2012), no. 4, 1562–1568.
59. D. Inoan, I. Raşa, *A majorization inequality for Wright-convex functions revisited*. Aequationes Math. 83(2012), no. 3, 209–214.
60. A. Ciurte, S. Nedevschi, I. Raşa, *An algorithm for solving some nonlinear systems with applications to extremum problems*. Taiwanese J. Math. 16 (2012), no. 3, 1137–1150.
61. I. Raşa, *Estimates for the semigroup associated with Bernstein-Schnabl operators*. Carpathian J. Math. 28 (2012), no. 1, 157–162.
62. D. Popa, I. Raşa, *The Fréchet functional equation with application to the stability of certain operators*. J. Approx. Theory 164 (2012), no. 1, 138–144.
63. A.M. Acu, H. Gonska, I. Raşa, *Griiss-type and Ostrowski-type inequalities in approximation theory*. Ukrainian Math. J. 63 (2011), no. 6, 843–864.
64. D. Cárdenas-Morales, P. Garrancho, I. Raşa, *Bernstein-type operators which preserve polynomials*. Comput. Math. Appl. 62 (2011), no. 1, 158–163.
65. D. Popa, I. Raşa, *On the Hyers-Ulam stability of the linear differential equation*. J. Math. Anal. Appl. 381 (2011), no. 2, 530–537.
66. H. Gonska, M. Heilmann, I. Raşa, *Kantorovich operators of order  $k$* . Numer. Funct. Anal. Optim. 32 (2011), no. 7, 717–738.
67. A. Attalienti, M. R. Mininni, I. Raşa, *Gamma-type operators and the Black-Scholes semigroup*. J. Approx. Theory 163 (2011), no. 2, 163–182.
68. H. Gonska, I. Raşa, *On the composition and decomposition of positive linear operators (II)*. Studia Sci. Math. Hungar. 47 (2010), no. 4, 448–461.
69. H. Gonska, M. Heilmann, I. Raşa, *Convergence of iterates of genuine and ultraspherical Durrmeyer operators to the limiting semigroup:  $C_2$ -estimates*. J. Approx. Theory 160 (2009), no. 1-2, 243–255.
70. H. Gonska, P. Pişul, I. Raşa, *General King-type operators*. Results Math. 53 (2009), no. 3-4, 279–286.
71. A. Attalienti, I. Raşa, *Overiterated linear operators and asymptotic behaviour of semigroups*. Mediterr. J. Math. 5 (2008), no. 3, 315–324.

72. M. Campiti, I. Raşa, C. Tacelli, *Steklov operators and semigroups in weighted spaces of continuous real functions*. Acta Math. Hungar. 120 (2008), no. 1-2, 103–125.
73. F. Altomare, V. Leonessa, I. Raşa, *On Bernstein-Schnabl operators on the unit interval*. Z. Anal. Anwend. 27 (2008), no. 3, 353–379.
74. A. Attalienti, I. Raşa, *Shape-preserving properties and asymptotic behaviour of the semigroup generated by the Black-Scholes operator*. Czechoslovak Math. J. 58(133) (2008), no. 2, 457–467.
75. H. Gonska, D. Kacsó, I. Raşa, *On genuine Bernstein-Durrmeyer operators*. Results Math. 50(2007), no. 3-4, 213–225.
76. M. E. Mangino, I. Raşa, *A quantitative version of Trotter's approximation theorem*. J. Approx. Theory 146 (2007), no. 2, 149–156.
77. H. Gonska, P. Pişul, I. Raşa, *Over-iterates of Bernstein-Stancu operators*. Calcolo 44 (2007), no. 2, 117–125.
78. Raşa, *Classes of convex functions associated with Bernstein operators of second kind*. Math. Inequal. Appl. 9 (2006), no. 4, 599–605.
79. H. Gonska, I. Raşa, *The limiting semigroup of the Bernstein iterates: degree of convergence*. Acta Math. Hungar. 111 (2006), no. 1-2, 119–130.
80. I. Raşa, *One-dimensional diffusions and approximation*. Mediterr. J. Math. 2 (2005), no. 2, 153–169.
81. F. Altomare, I. Raşa, *On a class of exponential-type operators and their limit semigroups*. J. Approx. Theory 135 (2005), no. 2, 258–275.
82. M. Campiti, I. Raşa, *Qualitative properties of a class of Fleming-Viot operators*. Acta Math. Hungar. 103(2004), no. 1-2, 55–69.
83. G. Mastroianni, I. Raşa, *Inequalities for functions with higher monotonicities*. Acta Math. Hungar. 92(2001), no. 4, 333–346.
84. I. Raşa, L. G. Labsker, *Some criteria and properties of Chebyshev systems*. (Russian) Sibirsk. Mat. Zh. 36 (1995), no. 6, 1375–1383, iii; translation in Siberian Math. J. 36 (1995), no. 6, 1194–1202.
85. C. Badea, I. Raşa, *The Gleason-Kahane-Żelazko property and Korovkin systems in symmetric involutive Banach algebras*. Arch. Math. (Basel) 61 (1993), no. 2, 163–169.

## BDI

1. Gonska, Heiner; Heilmann, Margareta; Raşa, Ioan *Eigenstructure of the genuine beta operators of Lupaş and Mühlbach*. Stud. Univ. Babeş-Bolyai Math. 61 (2016), no. 3, 383–388. MR3553998
2. T Acar, A Aral, I Raşa, *Positive Linear Operators Preserving  $\tau$  and  $\tau^{\{2\}}$* , Constructive Mathematical Analysis, 2(3) (2019) 98-102.
3. [A.Attalienti, I. Raşa, \*The eigenstructure of some positive linear operators\*. , Rev. Anal. Numér. Théor. Approx. 43 \(2014\), no. 1, 45–58](#)
3. H. Gonska, I. Raşa, M. D. Rusu, *Čebyšev-Grüss-type inequalities via discrete*

- oscillations*. Bul. Acad. Ştiinţe Repub. Mold. Mat. 2014, no. 1, 63–89.
4. I. Raşa, E. Stănilă, *On some operators linking the Bernstein and the genuine Bernstein-Durrmeyer operators*. J. Appl. Funct. Anal. 9 (2014), no. 3-4, 369–378.
  5. M Heilmann, I. Raşa, *k-th order Kantorovich type modification of the operators Upn*. J. Appl. Funct. Anal. 9 (2014), no. 3-4, 320–334.
  6. [H. Gonska, I. Raşa, \*Sur la suite des opérateurs Bernstein composés. \(French\) \(On the sequence of composite Bernstein operators\) Rev. Anal. Numér. Théor. Approx.\* 42 \(2013\), no. 2, 151–160.](#)
  7. D. Mache, I. Raşa, *Relations between polynomial operators*. Automat. Comput. Appl. Math. 22(2013), no. 1, 157–163.
  8. D. Cárdenas-Morales, P. Garrancho, I. Raşa, *Asymptotic formulae via a Korovkin-type result*. Abstr. Appl. Anal. 2012, Art. ID 217464, 12 pp.
  9. H. Gonska, I. Raşa, M. D. Rusu, *Applications of an Ostrowski-type inequality*. J. Comput. Anal. Appl. 14 (2012), no. 1, 19–31.
  10. F. Altomare, I. Raşa, *Lipschitz contractions, unique ergodicity and asymptotics of Markov semigroups*. Boll. Unione Mat. Ital. (9) 5 (2012), no. 1, 1–17.
  11. I. Raşa, *Discrete operators associated with certain integral operators*. Stud. Univ. Babeş-Bolyai Math. 56 (2011), no. 2, 537–544.
  12. I. Raşa,  *$C_0$ -semigroups and iterates of positive linear operators: asymptotic behaviour*. Rend. Circ. Mat. Palermo (2) Suppl. No. 82 (2010), 123–142.
  13. H. Gonska, M. Heilmann, I. Raşa, *Asymptotic behaviour of differentiated Bernstein polynomials revisited*. Gen. Math. 18 (2010), no. 1, 45–53.
  14. D. Inoan, I. Raşa, *Inequalities for special means*. Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity 8 (2010), 39–43.
  15. A. Ciurte, S. Nedevschi, I. Raşa, *A generalization of the EMMML and ISRA algorithms for solving linear systems*. J. Comput. Anal. Appl. 12 (2010), no. 4, 799–816
  16. I. Raşa, *A general block frequency test*. Automat. Comput. Appl. Math. 18 (2009), no. 1, 173–176.62F03 (65C10)
  17. I. Raşa, *Asymptotic behaviour of iterates of positive linear operators*. Jaen J. Approx. 1 (2009), no. 2, 195–204.
  18. I. Raşa, *Asymptotic behaviour of certain semigroups generated by differential operators*. Jaen J. Approx. 1 (2009), no. 1, 27–36.
  19. H. Gonska, I. Raşa, *Asymptotic behaviour of differentiated Bernstein polynomials*. Mat. Vesnik 61(2009), no. 1, 53–60.
  20. I. Raşa, *A family of sequences*. Automat. Comput. Appl. Math. 17 (2008), no. 2, 305–308.
  21. H. Gonska, I. Raşa, *Remarks on Voronovskaya's theorem*. Gen. Math. 16 (2008), no. 4, 87–97.
  22. M. Campiti, I. Raşa, C. Tacelli, *Steklov operators and their associated*



- semigroups*. Acta Sci. Math. (Szeged) 74 (2008), no. 1-2, 171–189.
23. [A. Attalienti, I. Raşa, \*Total positivity: an application to positive linear operators and to their limiting semigroups\*. Rev. Anal. Numér. Théor. Approx. 36 \(2007\), no. 1, 51–66 \(2008\).](#)
  24. I. Raşa, *Positive linear operators and their limiting semigroups: quantitative results*. Trends and challenges in applied mathematics, 82–91, Matrix Rom, Bucharest, 2007
  25. I. Raşa, *Modified Bernstein polynomials of second kind*. Automat. Comput. Appl. Math. 16 (2007), no. 2, 305–308 (2008).
  26. D. Popa, I. Raşa, *Inequalities involving the inner product*. JIPAM. J. Inequal. Pure Appl. Math. 8(2007), no. 3, Article 86, 4 pp.
  27. D. Popa, I. Raşa, *Hermite-Hadamard type inequalities*. Automat. Comput. Appl. Math. 15 (2006),no. 2, 275–277 (2007).
  28. [I. Raşa, \*Iterated Boolean sums of Bernstein and related operators\*. Rev. Anal. Numér. Théor. Approx.35 \(2006\), no. 1, 111–115.](#)
  29. H. Gonska, P. Pişul, I. Raşa, *On differences of positive linear operators*. Carpathian J. Math.22 (2006), no. 1-2, 65–78.
  30. D. Mache, I. Raşa, *Some  $C_0$ -semigroups related to polynomial operators*. Rend. Circ. Mat. Palermo (2) Suppl. No. 76 (2005), 459–467.
  31. I. Raşa, *Rates of convergence for a semigroup of operators*. Automat. Comput. Appl. Math. 13 (2004),no. 1, 179–181 (2005).
  32. [Raşa, Ioan, \*Estimates for the semigroup associated with Bernstein operators\*. Rev. Anal. Numér. Théor. Approx. 33 \(2004\), no. 2, 243–245 \(2005\).](#)
  33. M. Campiti, I. Raşa, *Bernstein-Stancu operators on the standard simplex*. Math. Balkanica (N.S.)17 (2003), no. 3-4, 239–257.
  34. I. Raşa, *Feller semigroups, elliptic operators and Altomare projections*. Proceedings of the Fourth International Conference on Functional Analysis and Approximation Theory, Vol. I (Potenza, 2000). Rend. Circ. Mat. Palermo (2) Suppl. 2002, no. 68, part I, 133–155.
  35. I. Raşa, *Positive operators, Feller semigroups and diffusion equations associated with Altomare projections*. Conf. Semin. Mat. Univ. Bari No. 284 (2002), 1–26.
  36. [M. Ivan, I. Raşa, \*A Voronovskaya-type theorem. Dedicated to the memory of Acad. Tiberiu Popoviciu\*. Rev. Anal. Numér. Théor. Approx. 30 \(2001\), no. 1, 47–54 \(2002\).](#)
  37. [xxI. Raşa, \*On Soardi's Bernstein operators of second kind\*. Rev. Anal. Numér. Théor. Approx. 29 \(2000\), no. 2, 191–199 \(2002\).](#)
  38. I. Raşa, T. Vladislav, *Voronovskaja-type formula and preservation properties of a class of operators*. RoGer 2000—Braşov, 120–123, Schr.reihe Fachbereichs Math. Gerhard Mercator Univ., 485, Gerhard-Mercator-Univ., Duisburg, 2000.
  39. J. Pečarić, I. Raşa, *On an index set function*. Southeast Asian Bull. Math. 24

(2000), no. 3, 431–434.

40. I. Raşa, *On Soardi's Bernstein operators of second kind. Analysis, functional equations, approximation and convexity* (Cluj-Napoca, 1999), 264–271, Carpatica, Cluj-Napoca, 1999.

41. Adell, José A., de la Cal, Jesús, I. Raşa, *Lototsky-Schnabl operators on the unit interval*. (Italian) *Rend. Circ. Mat. Palermo* (2) 48 (1999), no. 3, 517–536.

42. F. Altomare, I. Raşa, *Feller semigroups, Bernstein type operators and generalized convexity associated with positive projections. New developments in approximation theory* (Dortmund, 1998), 9–32, *Internat. Ser. Numer. Math.*, 132, Birkhäuser, Basel, 1999

43. F. Altomare, I. Raşa, *On a class of differential operators associated with positive projections. International Workshop on Operator Theory* (Cefalonia, 1997). *Rend. Circ. Mat. Palermo* (2) Suppl. 1998, no. 56, 79–89.

44. F. Altomare, I. Raşa, *Towards a characterization of a class of differential operators associated with positive projections. Dedicated to Prof. C. Vinti* (Italian) (Perugia, 1996). *Atti Sem. Mat. Fis. Univ. Modena* 46 (1998), suppl., 3–38

45. I. Raşa, T. Vladislav, *Altomare projections and Lipschitz constants. Proceedings of the Third International Conference on Functional Analysis and Approximation Theory, Vol. II* (Acquafredda di Maratea, 1996). *Rend. Circ. Mat. Palermo* (2) Suppl. No. 52, Vol. II (1998), 749–756.

46. Adell, José A., de la Cal, Jesús, I. Raşa, *On the maximum principle for Bernstein-type operators*. *Studia Univ. Babeş-Bolyai Math.* 42 (1997), no. 3, 1–8.

47. [D. M. Ivan, I. Raşa, A Popoviciu-type mean value theorem. Rev. Anal. Numér. Théor. Approx. 26 \(1997\), no. 1-2, 95–98.](#)

48. I. Raşa, T. Vladislav, *Some properties of Bernstein and Stancu operators. Approximation and optimization, Vol. I* (Cluj-Napoca, 1996), 345–350, Transilvania, Cluj-Napoca, 1997.

49. I. Gavrea, I. Raşa, *On the rate of convergence of positive polynomial operators. Approximation and optimization, Vol. I* (Cluj-Napoca, 1996), 255–258, Transilvania, Cluj-Napoca, 1997.

50. J. Sándor, I. Raşa, *Inequalities for certain means in two arguments*. *Nieuw Arch. Wisk.* (4) 15 (1997), no. 1-2, 51–55.

51. [Pečarić, J.; Raşa, I. An integral inequality. Rev. Anal. Numér. Théor. Approx. 25 \(1996\), no. 1-2, 203–206.](#)

52. J. Pečarić, I. Raşa, *Inequalities for Wright-convex functions*. *Ann. Univ. Mariae Curie-Skłodowska Sect. A* 50 (1996), 185–190.

53. [M. Ivan, I. Raşa, A sequence of positive linear operators. Rev. Anal. Numér. Théor. Approx. 24 \(1995\), no. 1-2, 159–164.](#)

54. I. Raşa, *Probabilistic positive linear operators*. *Studia Univ. Babeş-Bolyai Math.* 40 (1995), no. 1, 33–38.

55. Della Vecchia, B., I. Raşa, *Bernstein-type operators, convexity and Lipschitz*

- classes. *Approx. Theory Appl.* (N.S.) 11 (1995), no. 1, 16–23.
56. J. Pečarić, I. Raşa, *Some inequalities and identities for means*. *Studia Univ. Babeş-Bolyai Math.* 39(1994), no. 1, 15–17. 26D15
57. J. E. Pečarić, I. Raşa, *Inequalities for a class of means*. *Studia Univ. Babeş-Bolyai Math.* 38 (1993), no. 1, 35–38.
58. J. E. Pečarić, I. Raşa, *On some linear inequalities*. *Studia Univ. Babeş-Bolyai Math.* 38 (1993), no. 4, 31–33.
59. [I. Gavrea, I. Raşa, \*Remarks on some quantitative Korovkin-type results\*. \*Rev. Anal. Numér. Théor. Approx.\* 22 \(1993\), no. 2, 173–176.](#)
60. I. Raşa, *On some properties of Altomare projections*. *Confer. Sem. Mat. Univ. Bari* No. 253 (1993), ii+19 pp. (1994).
61. I. Raşa, *Altomare projections and Lototsky-Schnabl operators*. *Proceedings of the Second International Conference in Functional Analysis and Approximation Theory* (Acquafredda di Maratea, 1992). *Rend. Circ. Mat. Palermo* (2) Suppl. No. 33 (1993), 439–451.
62. I. Raşa, Gh. Toader, *Estimations for the difference of power means*. *Automat. Comput. Appl. Math.* 1(1992), no. 1, 103–108.
63. J. E. Pečarić, I. Raşa, *On Jessen's inequality*. *Acta Sci. Math.* (Szeged) 56 (1992), no. 3-4, 305–309 (1993)
64. I. Raşa, *Test sets in quantitative Korovkin approximation*. *Studia Univ. Babeş-Bolyai Math.* 36 (1991), no. 4, 97–100.
65. J. E. Pečarić, I. Raşa, *Some improved inequalities*. *Studia Univ. Babeş-Bolyai Math.* 36 (1991), no. 2, 3–6.
66. M. Campiti, I. Raşa, *Sets of parabolic functions*. *Atti Sem. Mat. Fis. Univ. Modena* 39 (1991), no. 2, 513–526.
67. I. Raşa, *Korovkin approximation and parabolic functions*. *Confer. Sem. Mat. Univ. Bari* No. 236 (1991), 25 pp.
68. I. Raşa, *Differential inequalities for convex functions*. *Proceedings of the Third Symposium of Mathematics and its Applications* (Timișoara, 1989), 5–8, Rom. Acad., Timișoara, 1990.
69. I. Raşa, *On some systems of linear inequalities*. *IV. Bul. Științ. Inst. Politehn. Cluj-Napoca Ser. Mat. Mec. Apl. Construc. Maș.* 33 (1990), 93–96.
70. I. Raşa, Gh. Toader, *On the rate of convergence of double sequences*. *Bul. Științ. Inst. Politehn. Cluj-Napoca Ser. Mat. Mec. Apl. Construc. Maș.* 33 (1990), 27–30.
71. J. E. Pečarić, I. Raşa, *A linear operator preserving  $k$ -convex functions*. *Bul. Științ. Inst. Politehn. Cluj-Napoca Ser. Mat. Mec. Apl. Construc. Maș.* 33 (1990), 23–26.
72. L. G. Labsker, I. Raşa, *Tchebycheff systems: some criteria and properties*. *I. Bul. Științ. Inst. Politehn. Cluj-Napoca Ser. Mat. Mec. Apl. Construc. Maș.* 33 (1990), 7–10.

73. J. E. Pečarić, I. Raşa, *Inequalities for divided differences of  $n$ -convex functions*. Studia Univ. Babeş-Bolyai Math. 35 (1990), no. 2, 7–10.
74. [I. Raşa, \*Nets of positive linear functionals on  \$C\(X\)\$\* . Anal. Numér. Théor. Approx. 19 \(1990\), no. 2, 173–175.](#)
75. V. Câmpian, I. Raşa, *Perturbed topologies. II.* (Romanian) Bul. Ştiinţ. Inst. Politehn. Cluj-Napoca Ser. Mat. Mec. Apl. Construc. Maş. 32 (1989), 13–18.
76. [F. Altomare, I. Raşa, \*Approximation by positive operators in the space  \$C\(p\)\(\[a,b\]\)\$\* . Anal. Numér. Théor. Approx. 18 \(1989\), no. 1, 1–11.](#)
77. I. Raşa, *On some systems of linear inequalities. III. Itinerant Seminar on Functional Equations, Approximation and Convexity* (Cluj-Napoca, 1989), 283–286, Preprint, 89-6, Univ. "Babeş-Bolyai", Cluj-Napoca, 1989.
78. [I. Raşa, \*On the monotonicity of sequences of Bernstein-Schnabl operators\*. Anal. Numér. Théor. Approx. 17 \(1988\), no. 2, 185–187.](#)
79. [I. Raşa, \*On some systems of linear inequalities\*. Anal. Numér. Théor. Approx. 17 \(1988\), no. 2, 181–184.](#)
80. I. Raşa, *Convexity properties in normed linear spaces. Proceedings of the Second Symposium of Mathematics and its Applications* (Timișoara, 1987), 106–108, Res. Centre, Acad. SR Romania, Timișoara, 1988.
81. I. Raşa, *Generalized Bernstein operators and convex functions*. Studia Univ. Babeş-Bolyai Math. 33(1988), no. 2, 36–39.
82. I. Raşa, *A note on Jessen's inequality*. Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-Napoca, 1988), 275–280, Preprint, 88-6, Univ. "Babeş-Bolyai", Cluj-Napoca, 1988.
83. [I. Raşa, \*Norm-one projections on some function spaces\*. Anal. Numér. Théor. Approx. 17 \(1988\), no. 1, 63–64.](#)
84. Raşa, I. *On some Korovkin closures in  $C(X,C)$* . Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-Napoca, 1987), 273–274, Preprint, 87-6, Univ. "Babeş-Bolyai", Cluj-Napoca, 1987.
85. I. Raşa, *On some test systems in approximation by linear operators*. Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-Napoca, 1987), 49–54, Preprint, 87-6, Univ. "Babeş-Bolyai", Cluj-Napoca, 1987.
86. I. Raşa, *Uniqueness closures and Korovkin closures of some function spaces*. Studia Univ. Babeş-Bolyai Math. 32 (1987), no. 2, 32–33.
87. [I. Raşa, \*Peak sets, proper faces and boundaries\*. Anal. Numér. Théor. Approx. 16 \(1987\), no. 1, 77–80.](#)
88. [I. Raşa, \*Sets on which concave functions are affine and Korovkin closures\*. Anal. Numér. Théor. Approx. 15 \(1986\), no. 2, 163–165.](#)
89. [I. Raşa, \*Strictly concave and strictly superharmonic functions\*. Anal. Numér. Théor. Approx. 15 \(1986\), no. 1, 69–74.](#)
90. [I. Raşa, \*Approximation of twice differentiable functions by positive linear operators\*. Anal. Numér. Théor. Approx. 14 \(1985\), no. 2, 131–135.](#)

91. [I. Raşa, On some Korovkin subspaces. Anal. Numér. Théor. Approx. 14 \(1985\), no. 2, 127–130.](#)
92. [D. Andrica, I. Raşa, The Jensen inequality: refinements and applications. Anal. Numér. Théor. Approx. 14\(1985\), no. 2, 105–108.](#)
93. I. Raşa, *Generalized strictly concave functions*. Itinerant seminar on functional equations, approximation and convexity (Cluj-Napoca, 1985), 177–180, Preprint, 85-6, Univ. "Babeş-Bolyai", Cluj-Napoca, 1985.
94. D. Andrica, I. Raşa, *Nets in  $M1+(X)$  and mean value theorems*. Seminar on mathematical analysis (Cluj-Napoca, 1985), 7–12, Preprint, 85-7, Univ. "Babeş-Bolyai", Cluj-Napoca, 1985.
95. [I. Raşa, On the barycenter formula. Anal. Numér. Théor. Approx. 13 \(1984\), no. 2, 163–165.](#)
96. [D. Andrica, I. Raşa, Gh. Toader, On some inequalities involving convex sequences. Anal. Numér. Théor. Approx. 13 \(1984\), no. 1, 5–7.](#)
97. I. Raşa, *A Korovkin type theorem for the Lion operators*. Itinerant seminar on functional equations, approximation and convexity (Cluj-Napoca, 1984), 157–158, Preprint, 84-6, Univ. "Babeş-Bolyai", Cluj-Napoca, 1984.
98. I. Raşa, *Small boundaries for subspaces of  $C(X)$* . Itinerant seminar on functional equations, approximation and convexity (Cluj-Napoca, 1983), 129–130, Preprint, 83-2, Univ. "Babeş-Bolyai", Cluj-Napoca, 1983.
99. I. Raşa, *Convergent sequences of linear functionals*. (Romanian) Bul. Ştiinţ. Inst. Politehn. Cluj-Napoca Ser. Electrotehn.-Energet.-Inform. 25 (1982), 37–40.
100. [I. Raşa, On the inequalities of Popoviciu and Radó. Anal. Numér. Théor. Approx. 11 \(1982\), no. 1-2, 147–149](#)
101. [I. Raşa, On a measure-theoretical concept of convexity. Anal. Numér. Théor. Approx. 10 \(1981\), no. 2, 217–224.](#)
102. [I. Raşa, Determining sets for finitely defined operators. Anal. Numér. Théor. Approx. 10 \(1981\), no. 1, 89–93.](#)
103. [I. Raşa, Fonctionnelles  \$P\_n\$ -exactes et fonctionnelles  \$P\_n\$ -simples. \(French\) \[Pn-exact and Pn-simple functionals\] Anal. Numér. Théor. Approx. 10 \(1981\), no. 2, 211–215.](#)
104. [I. Raşa, Sur les fonctionnelles de la forme simple au sens de T. Popoviciu. \(French\) \[On the functionals of simple form in the sense of T. Popoviciu\] Anal. Numér. Théor. Approx. 9 \(1980\), no. 2, 261–268 \(1981\).](#)
105. [I. Raşa, On some results of C. A. Micchelli. Anal. Numér. Théor. Approx. 9 \(1980\), no. 1, 125–127.](#)
106. [I. Raşa, A remark on Tchebycheff systems. Anal. Numér. Théor. Approx. 6 \(1977\), no. 2, 193–195.](#)
107. [I. Raşa, Sur certaines algèbres de fonctions continues et sur les suites de variables aléatoires uniformément bornées. \(French\) Anal. Numér. Théor. Approx. 6 \(1977\), no. 1, 81–84.](#)

108. I. Raşa, *On the continuity of the Hamiltonian*. *Mathematica (Cluj)* 18(41) (1976), no. 2, 215–219.

109. [I. Raşa, \*Sur certaines suites de fonctionnelles\*. \(French\) \*Rev. Anal. Numér. Théor. Approx.\* 4 \(1975\), no. 2, 171–178 \(1976\).](#)